

Hardaway (W. A.)

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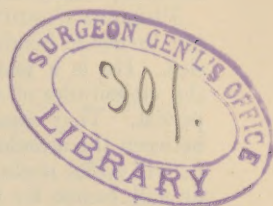
Professor of Diseases of the Skin in the St. Louis Post-Graduate School of Medicine, and in the Missouri Medical College, St. Louis.



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REPORT OF A CASE

OF

MULTIPLE MYOMATA OF THE SKIN,

ACCOMPANIED BY SEVERE PAIN; WITH REMARKS.¹

BY W. A. HARDAWAY, M.D.,

PROFESSOR OF DISEASES OF THE SKIN IN THE ST. LOUIS POST-GRADUATE SCHOOL OF MEDICINE, AND IN
THE MISSOURI MEDICAL COLLEGE, ST. LOUIS.

THE following case, of which I shall present brief notes, together with a plaster cast showing the size and general arrangement of the growths, is, I think, worthy of record as a contribution to the study of painful tumors of the skin :

J. B., German, aged thirty-six years; he is married and has two healthy children; his wife is also healthy. His family history is good, and he does not recall that either of his parents ever suffered from any cutaneous disease. He has never had syphilis.

So far as his knowledge goes, his present trouble began about one year ago. He observed that when the weather changed—that is, became either hot or cold—he experienced a drawing pain, lasting about five minutes, in the place where the lesions are now situated. When the pain subsided he was unaware of anything abnormal in this situation. These pains were absent sometimes for two or three weeks, sometimes a day, sometimes three or four days. To relieve these paroxysms he would make firm pressure over the affected region. At this time, however, he does not remember that, between the paroxysms, any pain was evoked by either accidental or intentional pressure. Later on, but he cannot say when, he was aware of the presence of a few lesions, and from time to time thereafter he was conscious that others became developed. He is quite positive that for the last six months the patch has existed pretty much in its present shape, and has not further progressed.

Of course, all of these statements must be taken with due allowance, and we can only be tolerably certain as to the length of time during which the subjective symptoms have been present; the tumors themselves

¹ Read before the American Dermatological Association, August 27, 1885.

may have been established long before his attention was attracted to them, especially as they are situated on the back, out of the field of vision.

PRESENT CONDITION.—The patient is a strong, hearty man, five feet ten inches in height, and, according to his own account, has never been sick. He is a peddler by occupation, and is constantly exposed to all the vicissitudes of weather. The neuralgic pains referred to above still persist. They come on mostly at night, when in bed. The intervals between the attacks are subject to considerable variations. At one time he will suffer nocturnal visitations for six or more nights together; then he will escape for two successive nights, or even for a week altogether. Of late, they have been more frequent and more severe. He is inclined to regard changes in the weather as largely responsible for his sufferings. The paroxysms appear suddenly and without premonition of any sort. Each attack lasts from two to three minutes, but is not repeated the same night. When a paroxysm occurs, the patient says that he feels as though he were being crushed together, and he rolls and tosses about in his bed in great agony. To gain relief, he turns on the affected side and instinctively makes deep, strong pressure with his hands. So far as he can judge, the pain is absolutely confined to the region of the growths, and does not radiate.

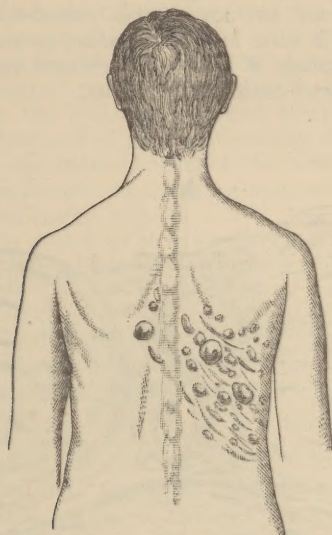
Examination made in the intervals of the attack shows that the parts are not at all hyperæsthetic, superficial touch with the fingers producing no symptoms of any kind; but moderately deep direct pressure with the tip of the index finger will cause him to drop to the floor, moaning with agony. In this case the pain appears to be but momentary, and is entirely different in character from the vice-like pressure of the spontaneous attacks. While pressure made almost anywhere over the affected region will cause the patient to wince, the acute pain follows only upon pressure over the larger tubercles. I do not now recall that there was any change in the color of the region involved during a paroxysm, or that there was any difference in the temperature or the occurrence of quiverings or contractions in the parts; but I must confess that, as my attention was not particularly called to these points at the time, they may have been overlooked.

DESCRIPTION OF THE LESIONS.—The infiltrated patch or plaque is situated on the right side of the back, in the mid-dorsal region, Fig. 1. It commences at the spinal column and takes an oblique downward course. It is four and a half inches long by two and a half inches wide. It passes over to the left side of the spine by two small tubercles. The great bulk is to the right of the column. The patch is made up of an aggregation of variously sized growths and infiltrations. Some of them are round and decidedly elevated above the level of the skin, at least three being as large as hazelnuts; others are elevated a few lines only and spindle shaped, or else dispersed in lines and streaks. The growth seems to involve the substance of the skin only, and is not bound down to the subcutaneous structures. The overlying epidermis is not scaly, or otherwise appreciably abnormal. The patch is of a reddish color, and the large tumors do not look unlike flesh moles. None of the growths are pedunculated.

Some time after he first came under observation, I passed a weak galvanic current through the tuberculated region, and whether as a result of the treatment, or from a mere coincidence, the patient thought that the intervals between the paroxysms had been extended. However, he

appeared to suffer as much as ever when firm pressure was made over the larger tubercles.

FIG. 1.



Infiltrated patch.

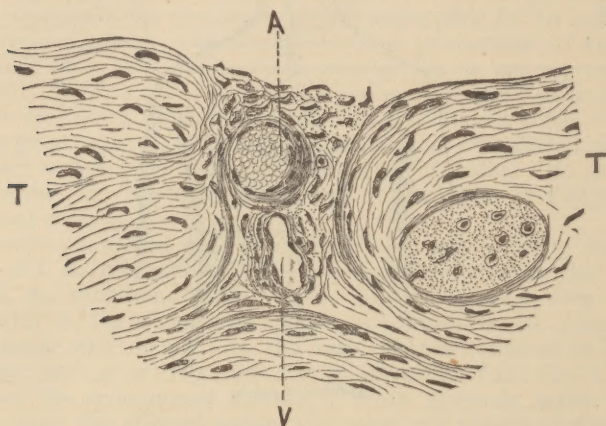
At my request, his physician, Dr. H. Tuholshe, cut out one of the large growths for microscopical examination. The tumor seemed to be encapsulated in the skin. Dr. L. Bremer, of St. Louis, to whom the specimen was submitted, made the following report of his microscopical investigations: "The tumor is about the size and shape of a large split pea; it is hardened in alcohol. Vertical sections, unstained, show moderately hypertrophied papillæ in some places, a comparatively thin layer of derma, and beneath this an apparently smooth mass when examined with a low power. Sections treated with picrocarmine show the usual reactions of the epidermis, an intensely red color of the derma, and a straw-colored mass beneath it. Prolongations from the derma, all characterized by their red color, traverse the former as narrow bands in all directions. The straw-color of picrocarmine staining indicates that the tissue lying beneath the red mass is composed of smooth muscle fibre. I had no saffronine at my disposal to verify and corroborate the result obtained by the picrocarmine test.

"With a view of establishing the presumed presence of nerve fibres in the new growth, osmic acid and chloride of gold were used; both these reagents yielded negative results. Neither myelinic nor amyelinic nerve fibres could be demonstrated. No new formation of nerves could be ascertained.

"On staining the sections with hæmatoxylin, rod-shaped nuclei appeared in great numbers, coming in different directions, showing the characteristics of the nuclei of smooth muscle fibres. They varied in length, some of them being three times as long as an ordinary nucleus of the smooth muscle fibre; there were also a few spindle-shaped nuclei,

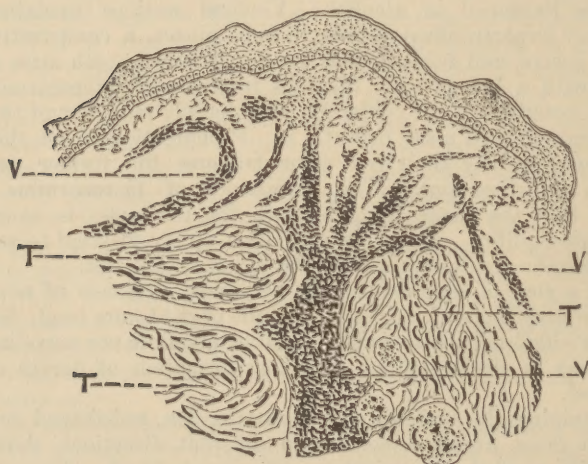
In the course of the septa furnished by the bands emanating from the derma, arteries and veins could be seen in a state of proliferation of their muscular elements. The same could be observed to a still greater extent in the derma. No normal artery or vein was to be seen in the latter. There was not, however, any appreciable round-cell infiltration around the vessels, such as is seen in inflammatory processes. It is probable that some of these strings of nuclei represented cutaneous nerves. No normal cutaneous nerve could be made out.

FIG. 2.



Proliferation of the muscular elements of an artery (A) and a vein (V). TT, tumor.
Hæmatoxylin and eosine. Hartnack, 3, vii.

FIG. 3.



Proliferating bloodvessels and their relation to the tumor and the derma. VVV, vessels in a state of proliferation. TTT, lobes of the tumor. Hæmatoxylin and eosine. Hartnack, 3, iv.

"The tumor, in my opinion, is a conglomerate of interlacing bundles of smooth muscular fibres. These bundles are formed by the proliferation of the muscular elements of the arteries and veins of the original derma, Fig. 2. There seems to be a limit of this process at the point where the veins and arteries lose their muscular layer and pass into capillaries. This would account for the stationary, non-progressive character of the tumor, as demonstrated by the clinical history of the case.

"In the fully developed tissue of the growth, I never observed the process of division in the rod-shaped nuclei, whereas I could see it in the immediate neighborhood of the proliferating vessels. The gradual transition from the muscular elements of the vessels into tissue tumor could be seen in a satisfactory manner in a number of specimens stained with hæmatoxylin and eosine, Fig. 3.

"I do not claim this report to be exhaustive, on account of the small amount of material obtainable: only one tumor was examined."

REMARKS.—Looked at from a purely clinical standpoint, it will be seen that the case just reported bears a strikingly close resemblance to the cases recorded by Duhring¹ and Kosinski,² which were looked upon by the authors mentioned as instances of pure neuroma of the skin. In all three cases we find certain characteristic features that they have in common, viz., the presence of numerous tubercles more or less embedded in the skin itself, and giving rise to unusually severe pains as a result of pressure or else of a spontaneous character. While in Duhring's case they occupied no nerve tract, in Kosinski's patient and my own this connection seems obvious. Whether the tumors in my case bore some relation to the cutaneous distribution of the dorsal nerves, I cannot say; at any rate, the presence of nerve tissue in the tumor examined was not demonstrated.

Looking further in this direction, we discover that in the muscle tumors of the skin reported by Besnier³ and Solles,⁴ the growths were painful in the first observer's patient as the result of pressure only, but in the patient of the latter the tumors were the seat of pain, both spontaneous and when provoked by traumatism of various kinds, and which, at first confined to the part irritated, afterward radiated in all directions. Wood's cases of subcutaneous painful tubercle, which were probably examples of fibromata and fibro-neuromata, also presented symptoms which differed little from those just described, as will be seen from the following synopsis of his original communication:⁵

The tumors were generally single and subcutaneous, although in some instances multiple, and in one instance so superficially seated as to form a visible prominence. The pain was extremely acute in the lesion itself,

¹ AMERICAN JOURNAL OF THE MEDICAL SCIENCES, Oct. 1873, and Oct. 1881.

² Centralblatt f. Chirurgie, No. 16, 1874.

³ Annales de Derm. et de Syph., 2me Sér. t. i. No. 1, 1880.

⁴ Ibid., 2me Sér., t. ii. No. 1, p. 60.

⁵ Edin. Med. and Surg. Journ., July, 1812.

but it also radiated. The pain could be provoked by pressure, and also occurred in violent paroxysms. During a paroxysm the suffering was slight at first, but rapidly increased until it became excruciating. It went off gradually, leaving the parts sore to the touch. The paroxysms lasted from ten minutes to two hours, and increased in severity with the age of the disease. Some had ease for days, or even weeks; others would have several attacks in one day. The pain was generally spontaneous, but could also be aroused by friction, etc. The attacks usually came on in the night, the patient waking in frightful agony. Handling the parts caused no pain, except during a paroxysm, when the affected region became acutely sensitive. Acute pain was produced at all times by changes in the weather. Some patients stated that they were sensible of an increase in size in the tumor and a change in color during an attack.

Most of his patients were females. Wood credited Cheselden with having first called attention to these painful tubercles. It is a significant fact, that in all of these cases, whether classed as fibromata, neuromata, or myomata, the subjective symptoms are nearly identical.

I shall leave entirely to the consideration of pathologists the various interesting histological questions that arise in this connection; as, for example, whether there exist true neuromata in the sense of tumors composed of newly formed nerve fibres; the connection between fibroma and neuroma; what causal relation, if any, exists between these variously constituted growths and the nervous system, etc.; but, as a clinician, I believe that the following conclusions, arising from a consideration of the points mentioned above, are to a degree justified:

That certain new growths in the skin and subcutaneous tissues, accompanied by severe pain, both of a spontaneous character, and as produced by direct irritation, may be of widely different histological structure; and that, therefore, from a clinical standpoint, we are not justified in assuming that a painful tumor or tubercle is a neuroma (fibro-neuroma) from the subjective symptoms that it presents, or from the macroscopic character of the lesions.

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